

S.D.E.

M.C.A. SEM - V : SUMMER - 2018

SUBJECT : ELECTIVE – III : COMPUTER GRAPHICS AND MULTIMEDIA

Day : **Friday**
Date : **01/06/2018**

S-2018-4631

Time : **10.00 A.M. TO 1.00 P.M.**
Max. Marks : 80

N.B.

- 1) Attempt any **FIVE** questions from Section – I and any **TWO** questions from Section - II.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer book.

SECTION – I

- Q.1** What is segment? What is content of segment table? Explain with example. (10)
- Q.2** What is pixel? What is the importance of using frame buffer? Is it dynamic storage structure? (10)
- Q.3** Explain boundary fill algorithm for polygon. (10)
- Q.4** Explain surface shading and its methods. (10)
- Q.5** Write 3-D transformation matrices for i) Translation ii) Scaling. (10)
- Q.6** Differentiate between file and frame buffer? Which of these is a dynamic information and why? (10)
- Q.7** Write short notes on any **TWO** of the following: (10)
- a) Application of multimedia
 - b) Image processing
 - c) Fractals

SECTION – II

- Q.8** What is windowing and clipping? Write the mid-point algorithm for line clipping. (15)
- Q.9** Explain DDA algorithm for circle generation. (15)
- Q.10** Write a C code for Sutherland Hodgeman polygon clipping algorithm. (15)

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